



# Status of Fine Particulate Matter in B.C. (2014-2016)

British Columbia operates a network of air monitoring stations that measure fine particulate matter and other air pollutants. This indicator reports on the concentration of fine particulate matter from 2014-2016 and compares it to the Canadian Ambient Air Quality Standard established by the Canadian Council of Ministers of the Environment.

 $\label{eq:Fine Particulate Matter} Fine Particulate Matter \\ Canadian Ambient Air Quality Standards for PM_{2.5}$ 

- The  $PM_{2.5}$  24-hour metric should be lower than 28  $\mu g/m3$ .
- The  $PM_{2.5}$  annual metric should be lower than 10.0  $\mu$ g/m3.

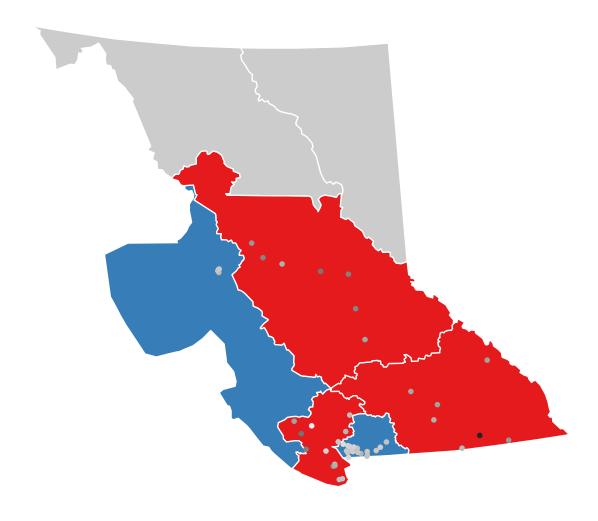
Learn more about CAAQS fine particulate matter metric calculations.

- Fine particulate matter is an air pollutant. Solid or liquid particles floating in the air are called particulate matter. The smallest of these particles those that are 2.5 microns or less in diameter, or less than 1/20th the width of a human hair are called fine particulate matter (PM2.5). Fine particulate matter comes from many natural and human activities, including wildfires and emissions from prescribed burning, forestry operations, residential woodstoves, and transportation.<sup>1</sup>
- Fine particulate matter can be harmful to humans. Exposure to fine particulate matter has been associated with several serious health effects including heart and lung disease. Both short-term (24-hour) and longer-term (a year or more) exposure to fine particulate matter can have negative effects on human health.
- Fine particulate matter levels met the Canadian Ambient Air Quality Standard at 86 percent of assessed monitoring stations in B.C. There are two standards for PM2.5 an annual standard, and a 24-hour standard (see sidebar). The annual standard was met at all of the 49 stations for which valid data was obtained, while the 24-hour standard was met at 43 of the 50 stations (86%) with sufficient data for analysis.
- Two of B.C.'s seven air zones met the Canadian Ambient Air Quality Standard for both fine particulate matter metrics. All air zones met the standard for the annual metric, and three air zones exceeded the standards for the 24-hour metric. There was not enough data to estimate the PM2.5 metrics Northeast air zones for this reporting period. Currently, there are no air monitoring stations in the Northwest air zone.
- Fine particulate matter metrics are used to set management levels for each air zone. Four management levels (green, yellow, orange, and red) are each associated with a suite of actions that become more rigorous as fine particulate matter levels approach the Canadian Ambient Air Quality Standards.

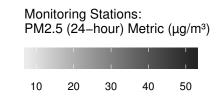
The maps and chart below summarise the Canadian Ambient Air Quality Standard (CAAQS) achievement status for fine particulate matter in B.C. air zones, as well as both the annual and 24-hour CAAQS  $PM_{2.5}$  metric values at individual monitoring stations. Summaries are given for each monitoring station where sufficient data was available for the 2014-2016 reporting period.



# Status of 24-hour PM2.5 Levels in B.C. Air Zones, 2014-2016

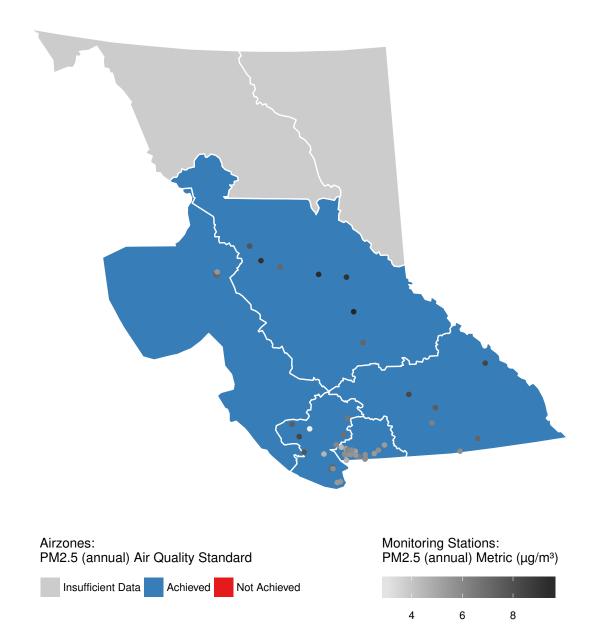




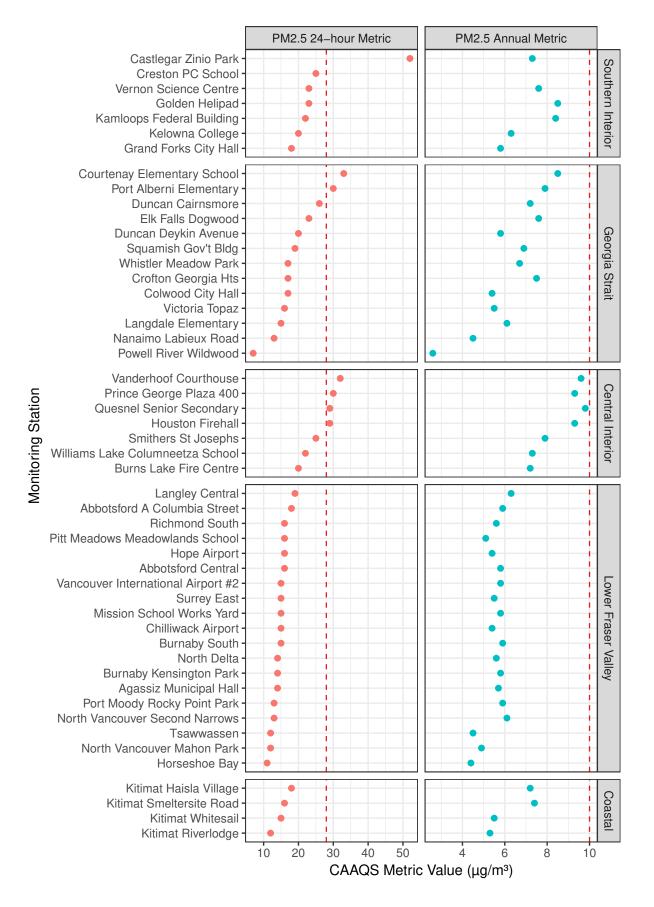




# Status of annual PM2.5 Levels in B.C. Air Zones, 2014-2016









#### More about the Canadian Ambient Air Quality Standard fine particulate matter metrics:

- There are two standards for fine particulate matter (PM2.5): the 24-hour standard, which is the 3-year average of the annual 98th percentile of the daily average concentrations of PM2.5, and the annual standard, which is the 3-year average of the annual average concentration of PM2.5.
- The PM2.5 metric for an air zone is the highest PM2.5 metric value reported from monitoring stations within the air zone. However, stations with metric values based on only two years of data are excluded for consideration of the *air zone* metric value, unless all station metric values are based on 2 years of data.
- Only air monitoring stations with sufficient data on fine particulate matter concentrations for the 2014-2016 reporting period were included in this indicator. Visit Current Air Quality Data for a complete list of air monitoring stations across B.C.
- Data completeness and sufficiency criteria for the two PM2.5 metrics are described in the Guidance Document on Achievement Determination: Canadian Ambient Air Quality Standards for Fine Particulate Matter and Ozone (2012) (PDF).

#### **Canada-wide Air Quality Management System**

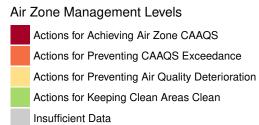
The Air Quality Management System is Canada's approach for protecting air quality. Under the Air Quality Management System, provinces and territories monitor, report and manage local air quality within air zones, with the goal of continuously improving air quality and keeping pollutants below the Canadian Ambient Air Quality Standards.

- Provinces and territories establish air zones that are defined by a similar set of air quality characteristics, issues and trends. There are seven air zones in British Columbia: Coastal, Georgia Strait, Lower Fraser Valley, Southern Interior, Central Interior, Northeast and Northwest.
- The Air Zone Management Framework defines air zone management levels based on the highest annual and 24-hour fine particulate matter metric values reported from monitoring stations within the air zone. Air zone management levels for PM2.5 are based on the higher of the PM2.5 annual and the PM2.5 24-hour management levels.
- The four management levels are (1) green (actions for keeping clean areas clean); (2) yellow (actions for preventing air quality deterioration); (3) orange (actions for preventing Canadian Ambient Air Quality Standard exceedance); and (4) red (actions for achieving air zone Canadian Ambient Air Quality Standard). Each management level is associated with a suite of actions that become more rigorous as fine particulate matter concentration levels approach the standard. Actions for each management level are detailed in the CCME Guidance Document on Air Zone Management (2012) (PDF)
- The Central Interior and Georgia Strait air zones were assigned to a red management level; the Lower Fraser Valley and Coastal air zones were assigned to a yellow management level; and the Southern Interior to an orange management level. Due to insufficient data, particulate management levels in the Northwest and Northeast air zones are yet to be determined. Note that while two stations in the Coastal air zone (Kitimat Haisla Village and Kitimat Smeltersite Road) had an annual metric that would indicate an 'orange' management level, they were excluded from consideration of the air zone metric value because they are based on only two years of data. Please see the box below for information on how influences from wildfire smoke is accounted for in the determination of management levels.



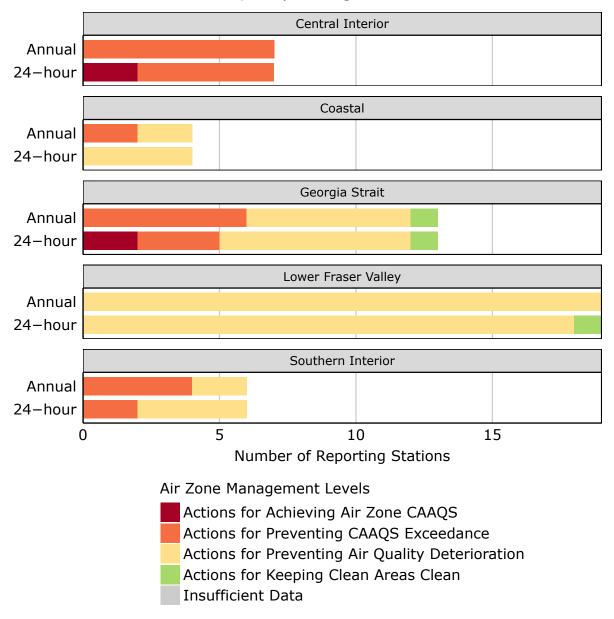
# Air Quality Management Levels in B.C. Air Zones







# Station-level Air Quality Management Levels Within Air Zone



#### More about the AQMS management levels:

- There can be cases when an air zone does not achieve a given standard because of sources over which jurisdictions have little or no control, such as those related to transboundary flows and exceptional events like forest fires
- Before determining management levels, jurisdictions have the option of adjusting their air zone metric values to remove such external influences. These arrangements aim to ensure that jurisdictions are responsible for managing only the emissions sources they can control.
- In B.C., wildfires are generally the largest contributor to transboundary flows and exceptional events. Over the 2014-16 reporting period, 50 stations had one or more days during wildfire season (May-September)



where the daily fine particulate matter concentration was determined to be influenced by wildfire and exceeded the standard of  $28~\mathrm{\^{A}\mu g/m^3}$ . Those daily concentrations were removed from the calculations of management levels. The majority of wildfire influences occurred in 2015, where fine particulate concentrations were affected by smoke at 44 monitoring stations for periods spanning one to ten days. In 2014 the fires were more localized, and 15 stations had up to 14 days affected by wildfire smoke, while in 2016 only two stations were affected.

#### Methods

The methods used to develop this indicator - including procedures, data requirements, and calculation of the Canadian Ambient Air Quality Standard fine particulate matter metrics - are detailed in the Guidance Document on Achievement Determination: Canadian Ambient Air Quality Standards for Fine Particulate Matter and Ozone (2012) (PDF) published by the Canadian Council of Ministers of the Environment (CCME).

**R package and code:** We have developed an **R** package to facilitate the calculation of air quality metrics according to the Canadian Ambient Air Quality Standards. Download the 'rcaaqs' package from GitHub. The source code for repeating the analysis presented on this page is also available on GitHub.

#### **References and Other Useful Links**

- · Learn more about the implementation of the Air Quality Management System in British Columbia
- Read individual Air Zone reports on the achievement of the Canadian Ambient Air Quality Standards for ground-level ozone and fine particulate matter in B.C.
- Access B.C.'s real-time data on air pollutants and find locations of all provincial air monitoring stations in B.C.
- BC Lung Association's BC State of the Air Reports
- Canadian Environmental Sustainability Indicators: Air and Climate Indicators
- For more details on the Canadian Ambient Air Quality Standars and Canada's Air Quality Management System visit Canada-wide Air Quality Management System
- Canadian Smog Science Assessment: Highlights and Key Messages (PDF, 1.1MB)

#### Data

\*By accessing these datasets, you agree to the licence associated with each file, as indicated in parentheses below.

- Indicator data: BC Fine Particulate Matter Canadian Ambient Air Quality Standards 2014-2016 (OGL-BC)
- BC PM2.5 Hourly Data & Air Monitoring Station locations (OGL-BC)
- BC Air Zones (OGL-BC)

Published and Available On-Line at Environmental Reporting BC (August 2017): http://www.env.gov.bc.ca/soe/indicators/air/fine\_pm.html

Email correspondence to: envreportbc@gov.bc.ca

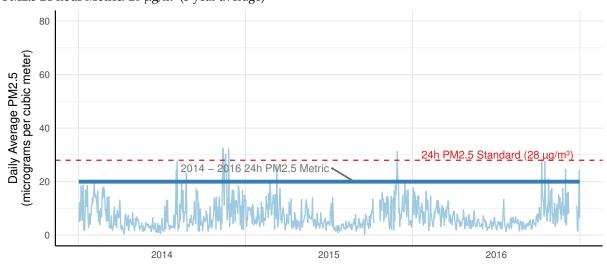


# Appendix: Detailed CAAQS results for each monitoring station within air zones in B.C.

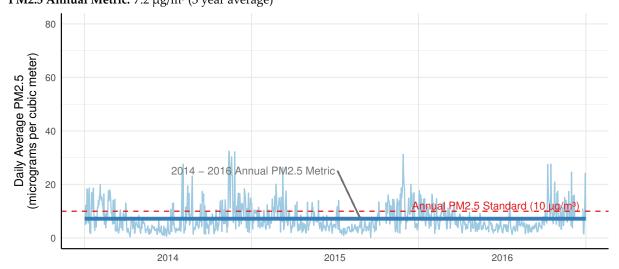
#### **Central Interior Air Zone**

#### **Burns Lake Fire Centre monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 20 µg/m³ (3 year average)



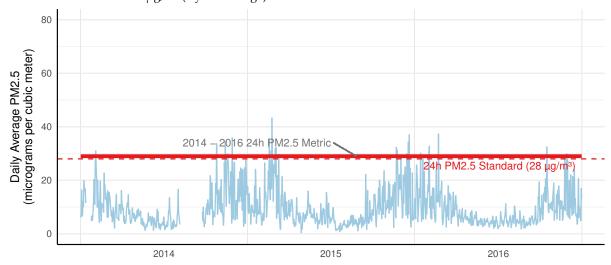
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.2 µg/m³ (3 year average)



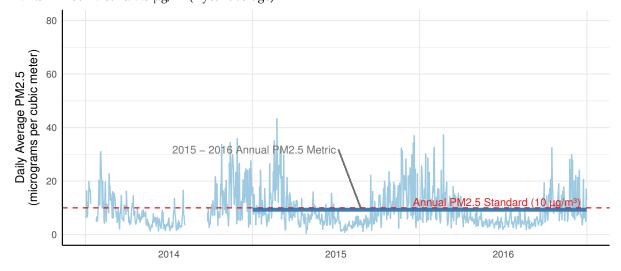


## **Houston Firehall monitoring station**

PM2.5 24-hour Air Quality Standard: Not Achieved PM2.5 24-hour Metric: 29 μg/m³ (3 year average)



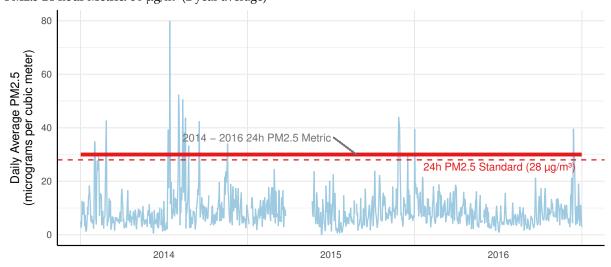
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 9.3 μg/m³ (2 year average)



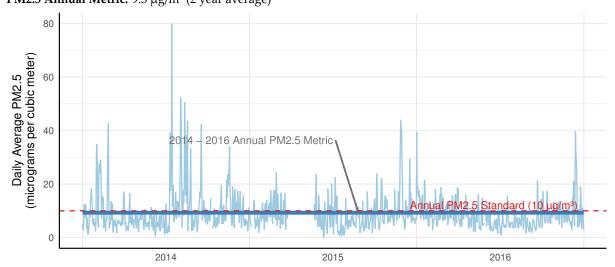


# Prince George Plaza 400 monitoring station

PM2.5 24-hour Air Quality Standard: Not Achieved PM2.5 24-hour Metric: 30 μg/m³ (2 year average)



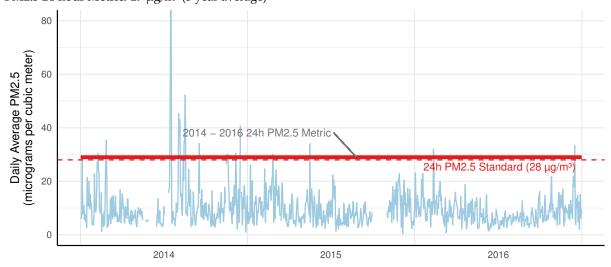
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 9.3 μg/m³ (2 year average)



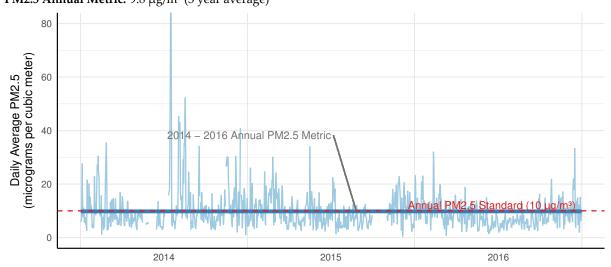


#### **Quesnel Senior Secondary monitoring station**

PM2.5 24-hour Air Quality Standard: Not Achieved PM2.5 24-hour Metric: 29  $\mu g/m^3$  (3 year average)



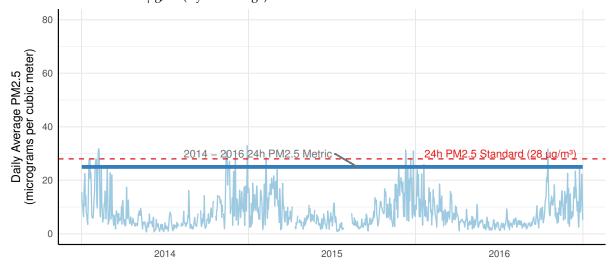
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 9.8 μg/m³ (3 year average)



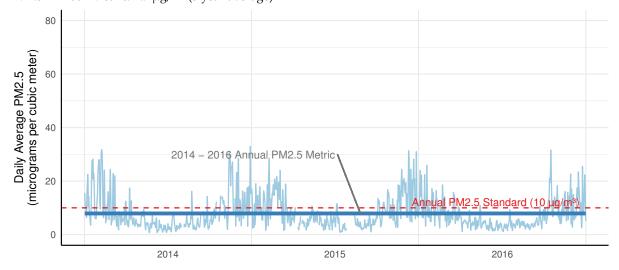


## **Smithers St Josephs monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 25 µg/m³ (3 year average)



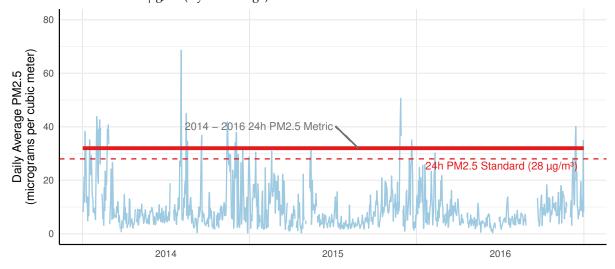
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.9 μg/m³ (3 year average)



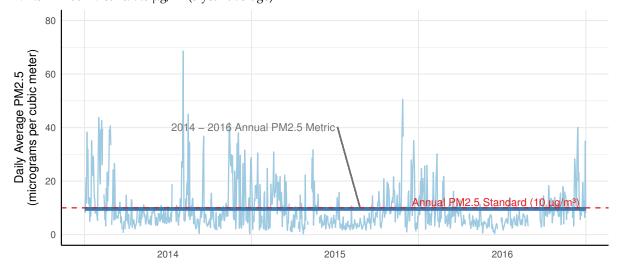


## **Vanderhoof Courthouse monitoring station**

PM2.5 24-hour Air Quality Standard: Not Achieved PM2.5 24-hour Metric:  $32 \mu g/m^3$  (3 year average)



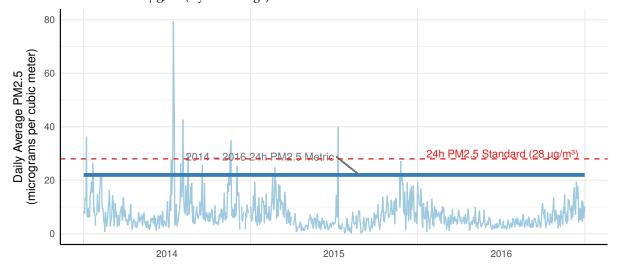
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 9.6 μg/m³ (3 year average)



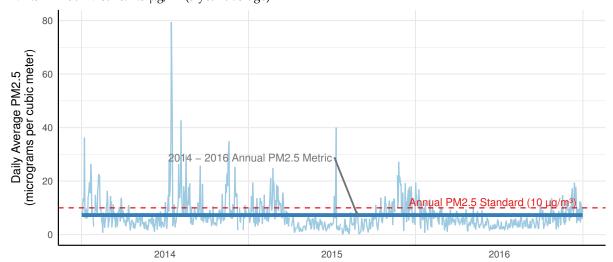


#### Williams Lake Columneetza School monitoring station

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 22 µg/m³ (3 year average)



PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.3 μg/m³ (3 year average)

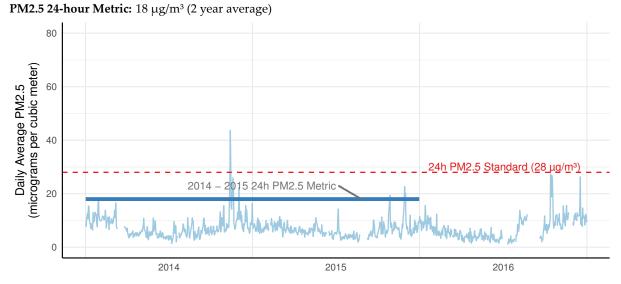




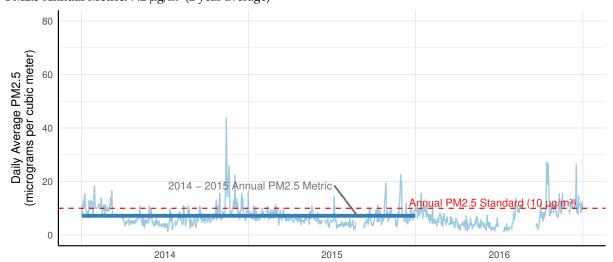
#### **Coastal Air Zone**

#### Kitimat Haisla Village monitoring station

PM2.5 24-hour Air Quality Standard: Achieved



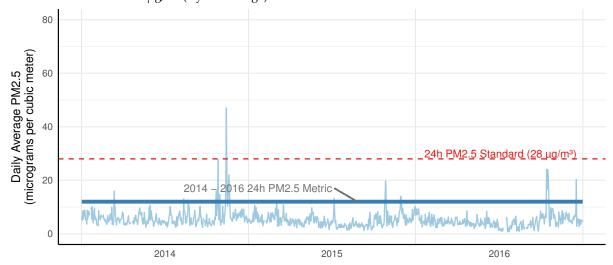
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.2 μg/m³ (2 year average)



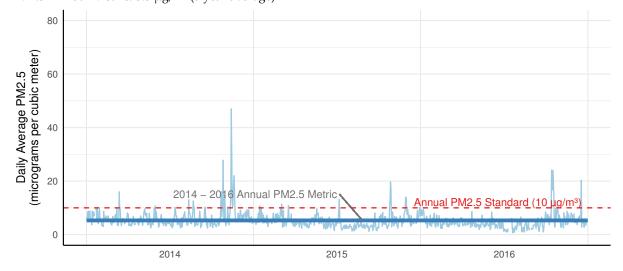


#### Kitimat Riverlodge monitoring station

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 12 µg/m³ (3 year average)



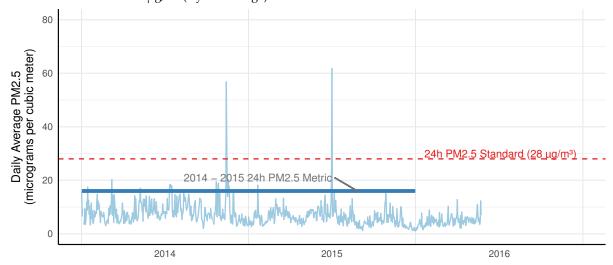
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.3 μg/m³ (3 year average)



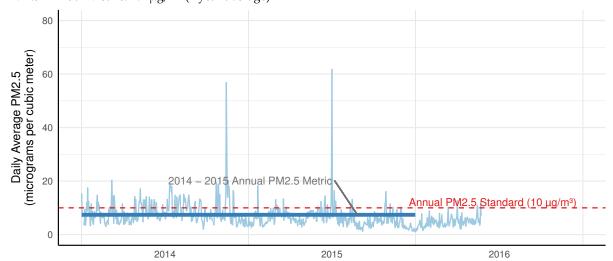


#### **Kitimat Smeltersite Road monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $16 \mu g/m^3$  (2 year average)



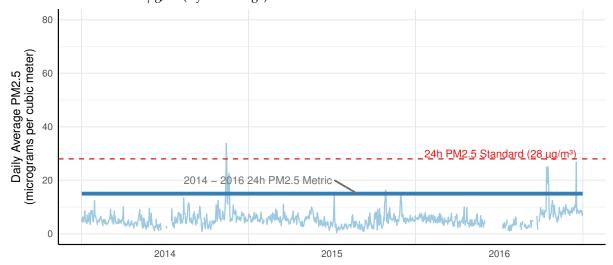
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.4 μg/m³ (2 year average)



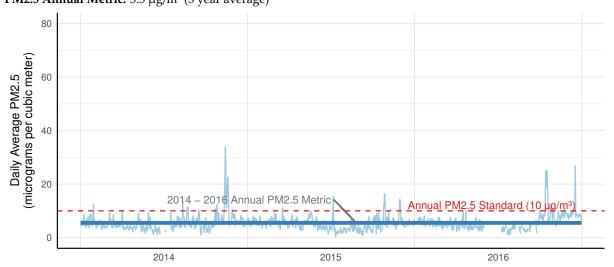


#### Kitimat Whitesail monitoring station

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $15 \mu g/m^3$  (3 year average)



PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.5 μg/m³ (3 year average)

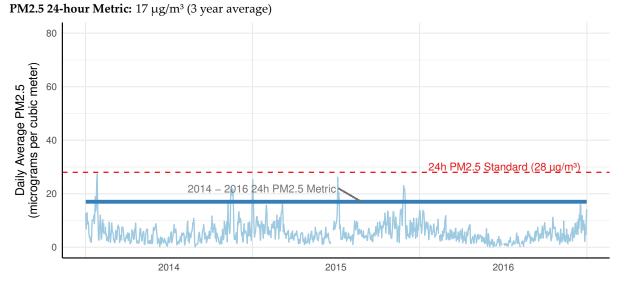




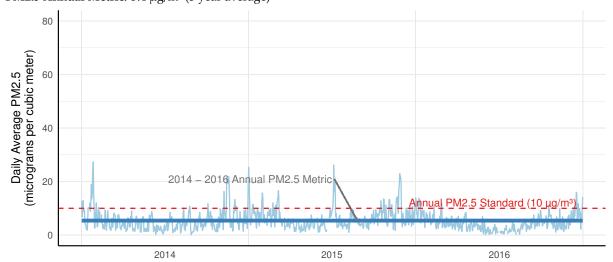
## **Georgia Strait Air Zone**

# **Colwood City Hall monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved



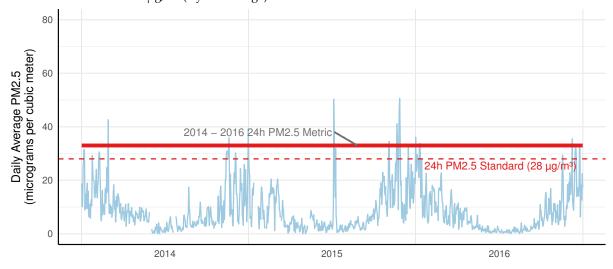
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.4 μg/m³ (3 year average)



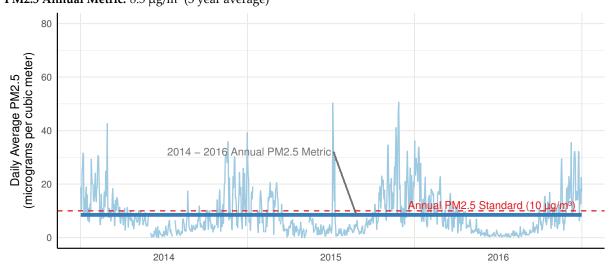


## **Courtenay Elementary School monitoring station**

PM2.5 24-hour Air Quality Standard: Not Achieved PM2.5 24-hour Metric:  $33 \mu g/m^3$  (3 year average)



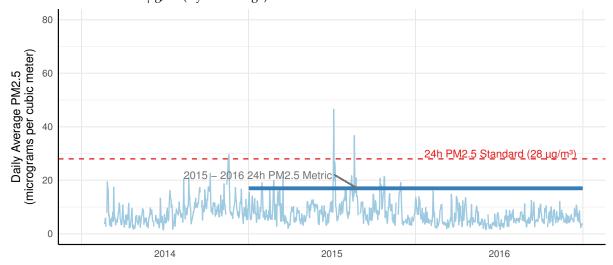
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 8.5 μg/m³ (3 year average)



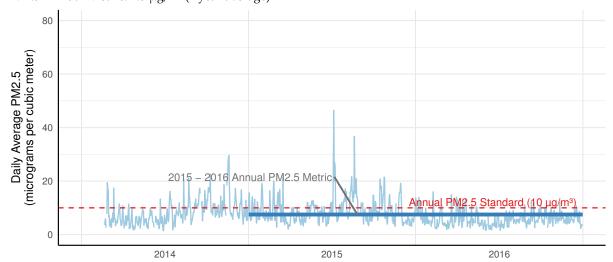


## **Crofton Georgia Hts monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $17 \mu g/m^3$  (2 year average)



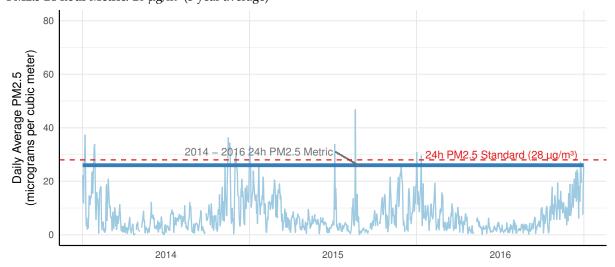
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.5 μg/m³ (2 year average)



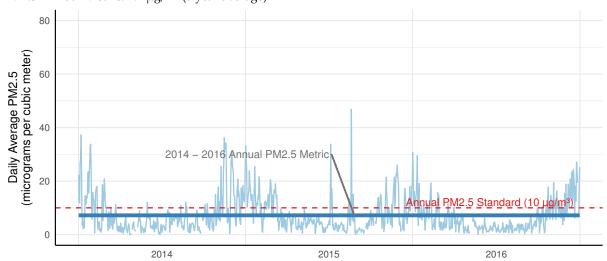


#### **Duncan Cairnsmore monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 26 µg/m³ (3 year average)



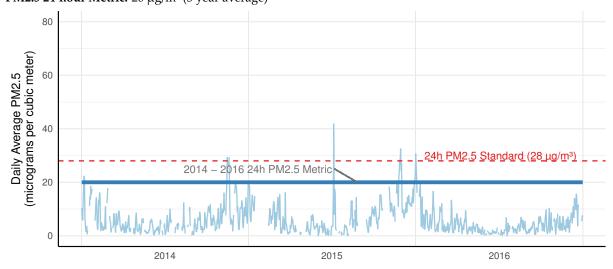
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.2 μg/m³ (3 year average)



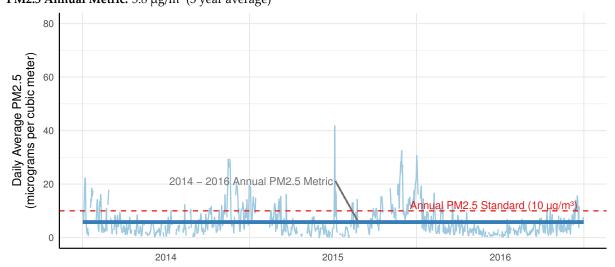


#### **Duncan Deykin Avenue monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 20 µg/m³ (3 year average)



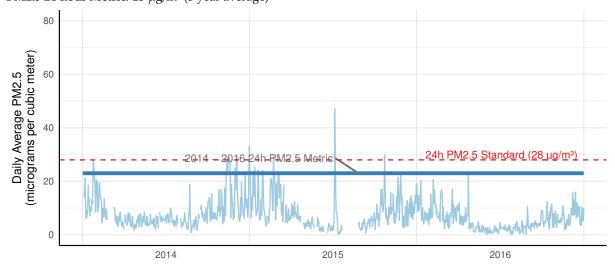
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.8 μg/m³ (3 year average)



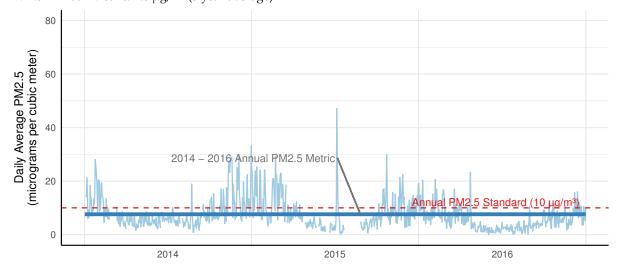


## **Elk Falls Dogwood monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 23 µg/m³ (3 year average)



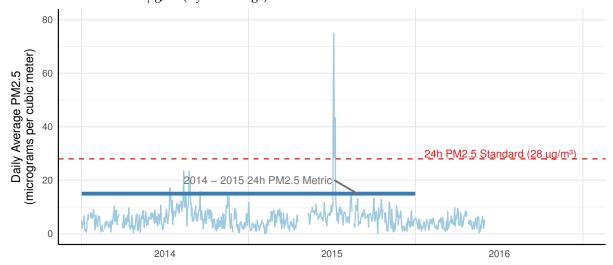
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.6 μg/m³ (3 year average)



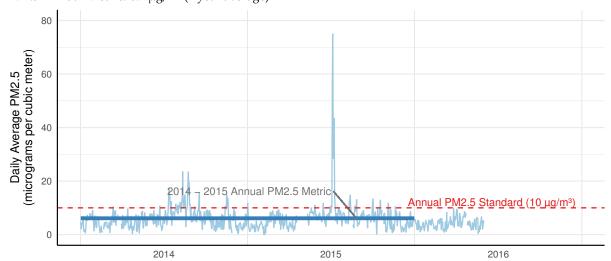


#### Langdale Elementary monitoring station

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 15 µg/m³ (2 year average)



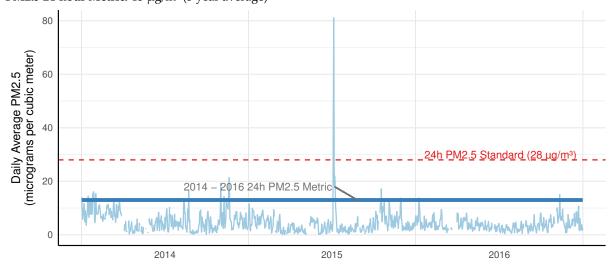
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 6.1 μg/m³ (2 year average)



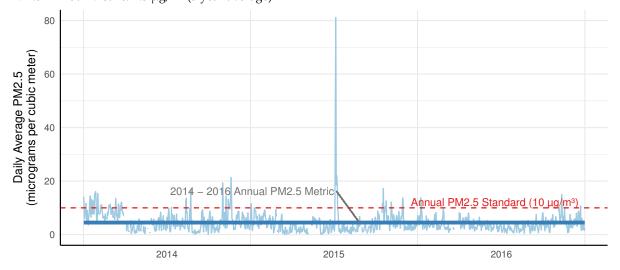


#### Nanaimo Labieux Road monitoring station

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 13 µg/m³ (3 year average)



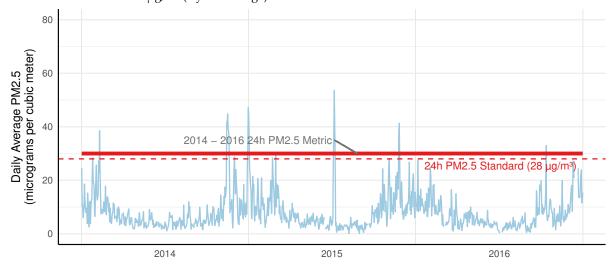
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 4.5 μg/m³ (3 year average)



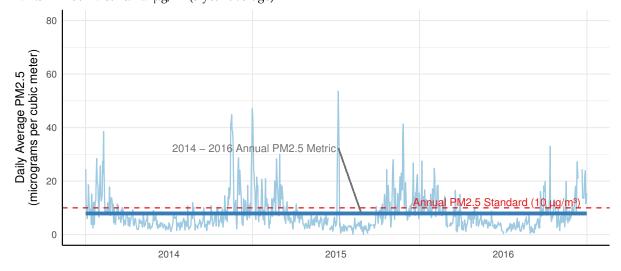


#### Port Alberni Elementary monitoring station

PM2.5 24-hour Air Quality Standard: Not Achieved PM2.5 24-hour Metric: 30 μg/m³ (3 year average)



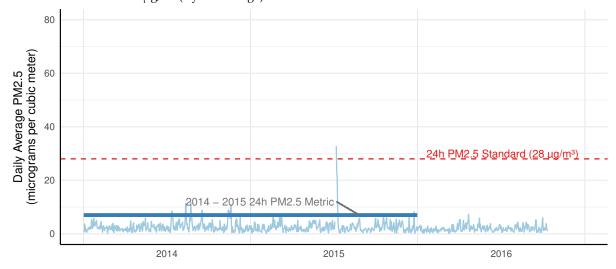
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.9 μg/m³ (3 year average)



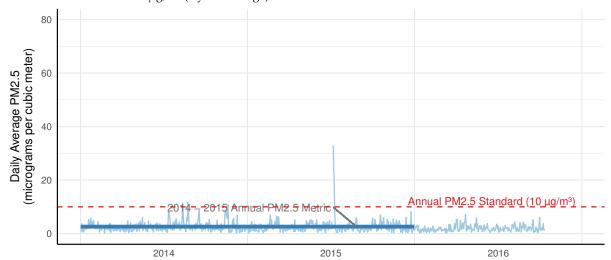


#### **Powell River Wildwood monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 7 μg/m³ (2 year average)



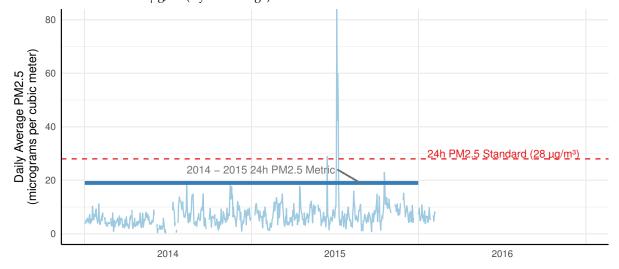
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 2.6 μg/m³ (2 year average)



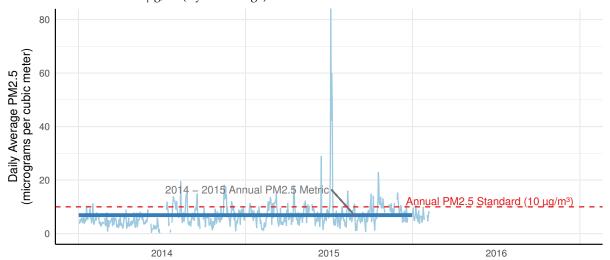


## Squamish Gov't Bldg monitoring station

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $19 \mu g/m^3$  (2 year average)



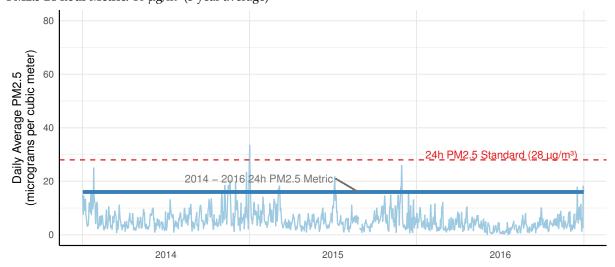
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 6.9 μg/m³ (2 year average)



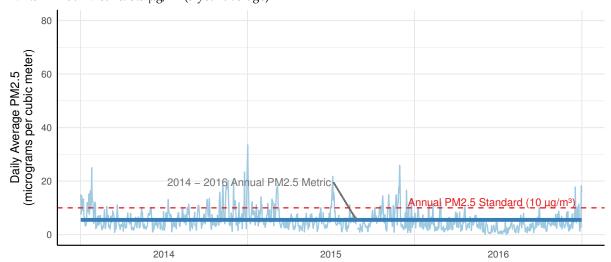


## **Victoria Topaz monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:** 16 μg/m³ (3 year average)



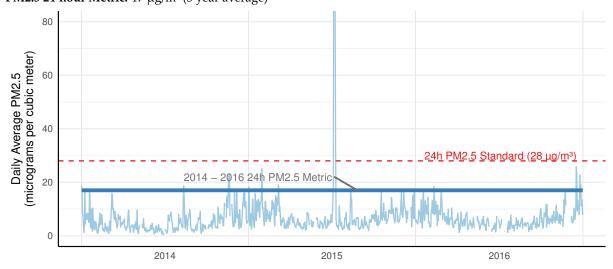
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.5 μg/m³ (3 year average)



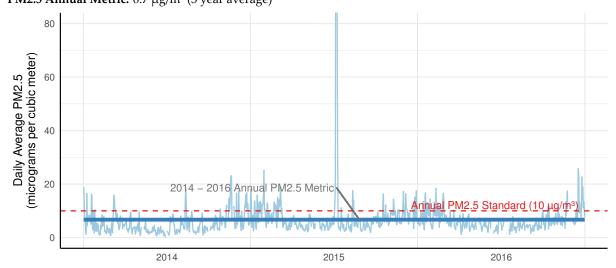


#### **Whistler Meadow Park monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 17 µg/m³ (3 year average)



PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 6.7 μg/m³ (3 year average)

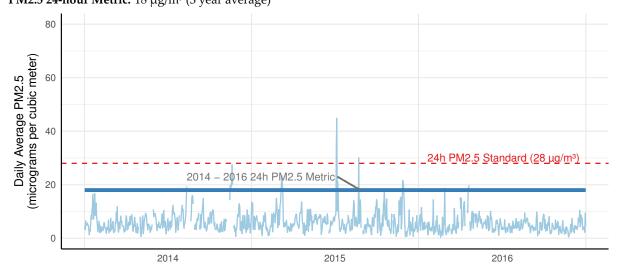




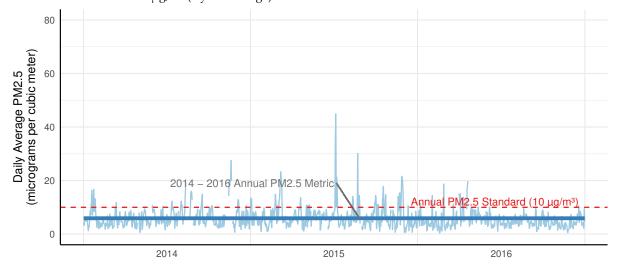
#### **Lower Fraser Valley Air Zone**

#### **Abbotsford A Columbia Street monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 18 µg/m³ (3 year average)



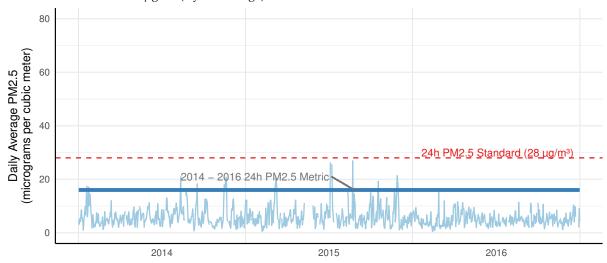
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.9 μg/m³ (3 year average)



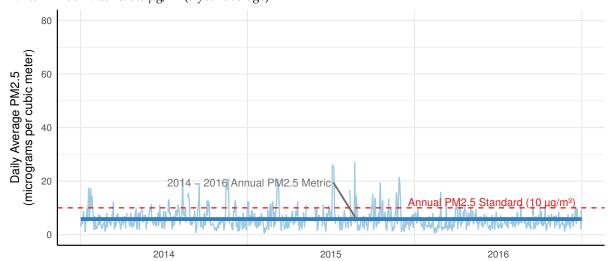


## **Abbotsford Central monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:** 16 μg/m³ (3 year average)



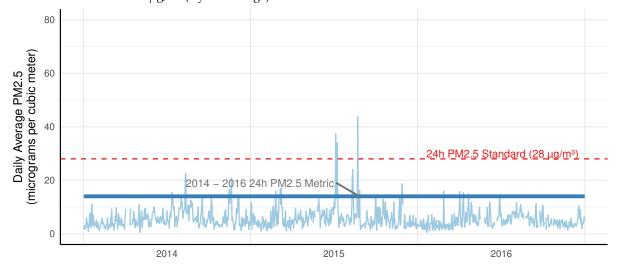
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.8 μg/m³ (3 year average)



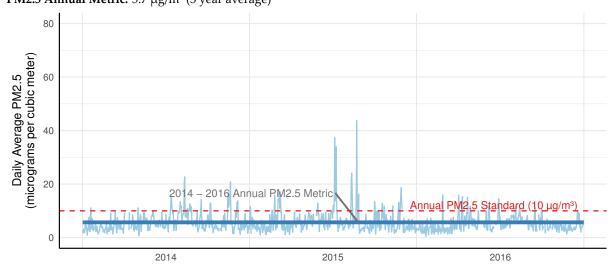


## **Agassiz Municipal Hall monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $14 \mu g/m^3$  (3 year average)



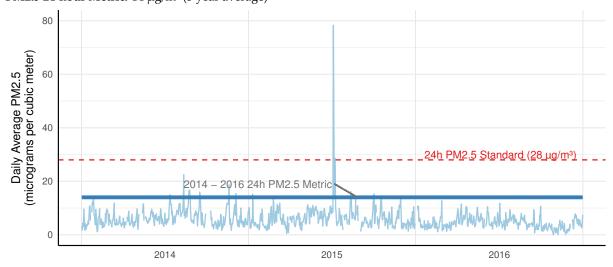
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.7 μg/m³ (3 year average)



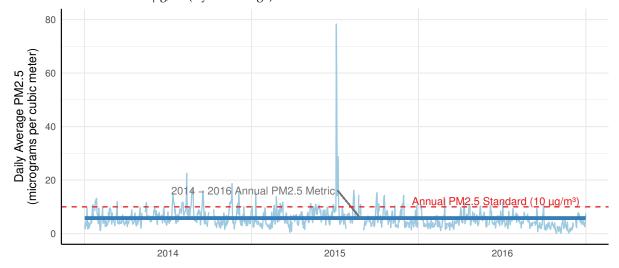


#### **Burnaby Kensington Park monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $14 \mu g/m^3$  (3 year average)



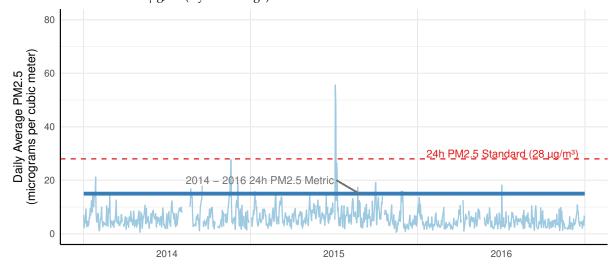
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.8 μg/m³ (3 year average)



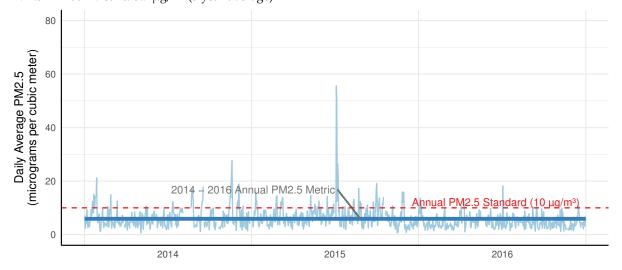


# **Burnaby South monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $15 \mu g/m^3$  (3 year average)



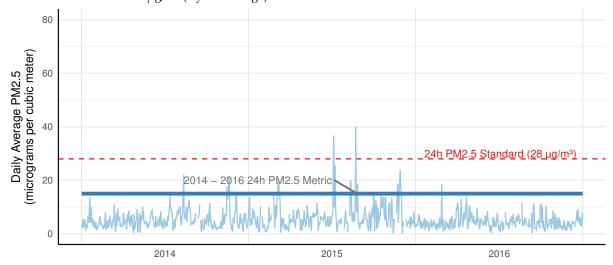
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.9 μg/m³ (3 year average)



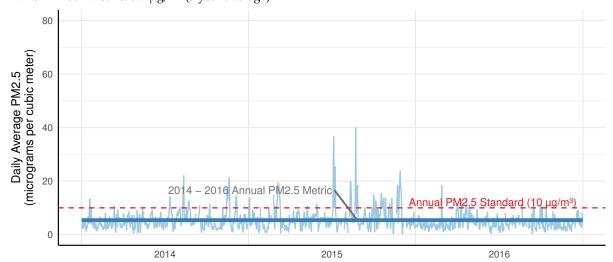


# **Chilliwack Airport monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $15 \mu g/m^3$  (3 year average)



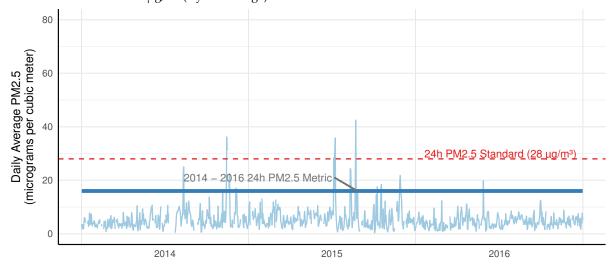
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.4 μg/m³ (3 year average)



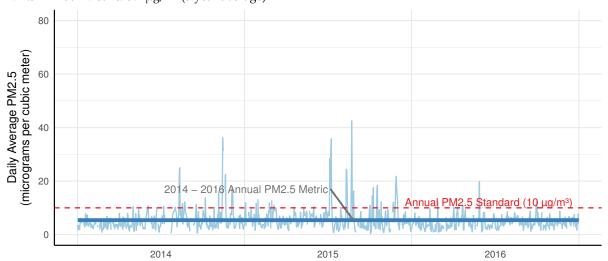


# **Hope Airport monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:** 16 μg/m³ (3 year average)



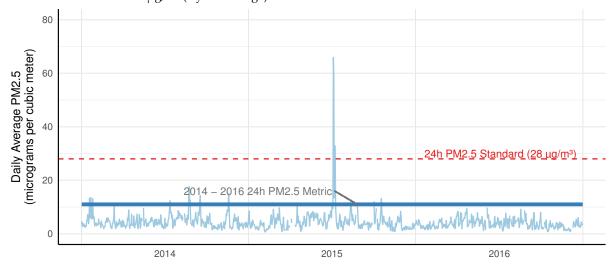
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.4 μg/m³ (3 year average)



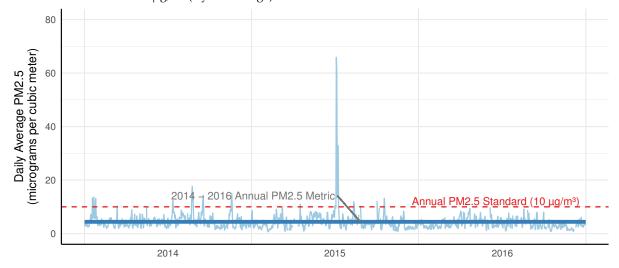


# **Horseshoe Bay monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $11 \mu g/m^3$  (3 year average)



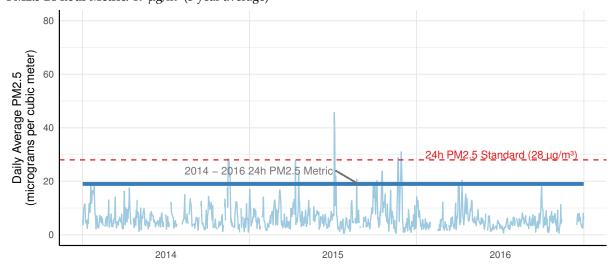
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 4.4 μg/m³ (3 year average)



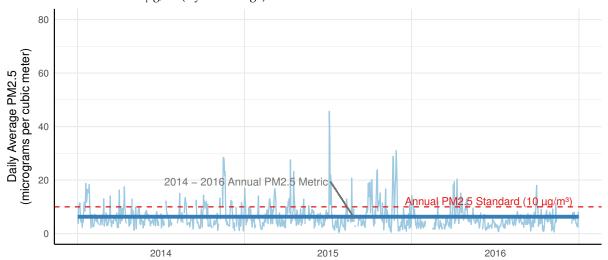


# **Langley Central monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:** 19 μg/m³ (3 year average)



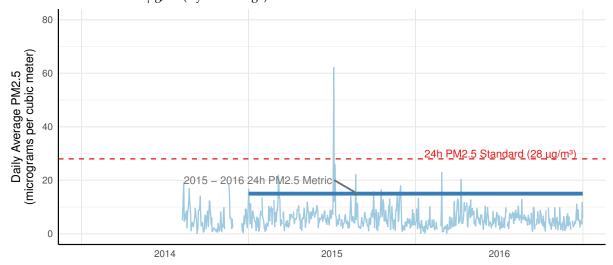
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 6.3 μg/m³ (3 year average)



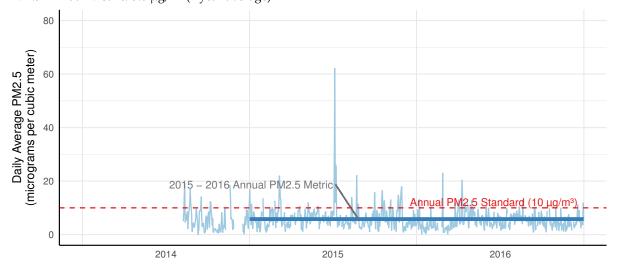


# Mission School Works Yard monitoring station

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $15 \mu g/m^3$  (2 year average)



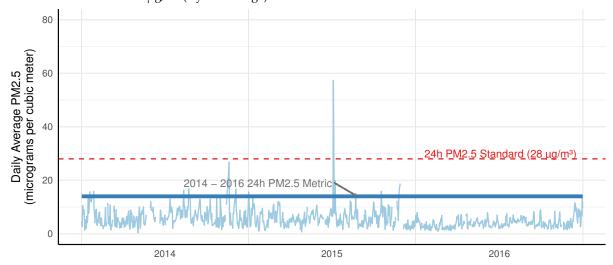
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.8 μg/m³ (2 year average)



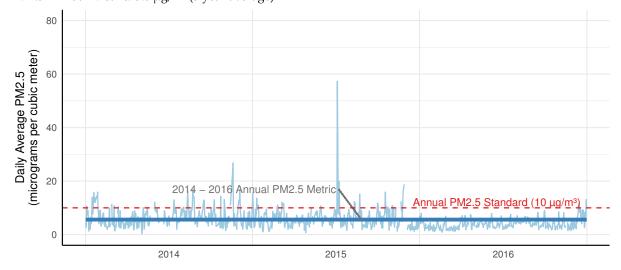


# North Delta monitoring station

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $14 \mu g/m^3$  (3 year average)



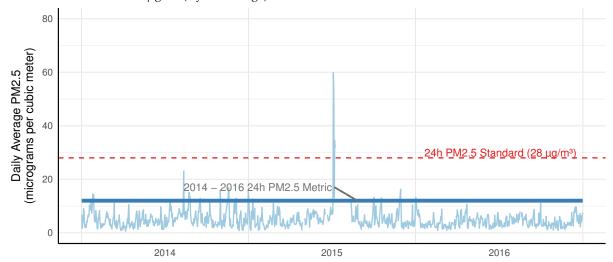
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.6 μg/m³ (3 year average)



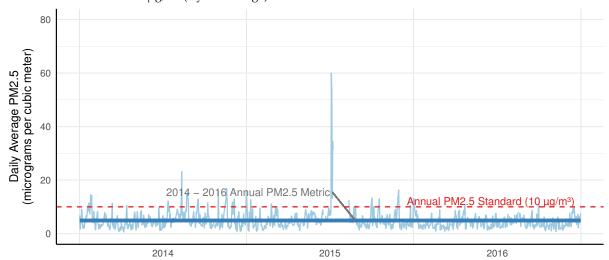


# North Vancouver Mahon Park monitoring station

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 12 µg/m³ (3 year average)



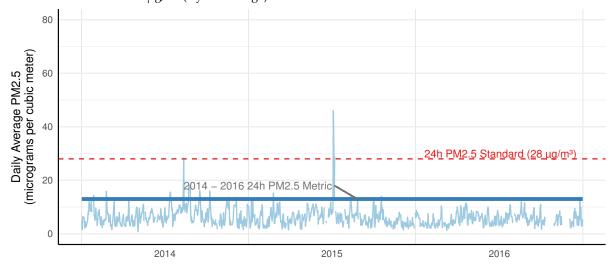
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 4.9 μg/m³ (3 year average)



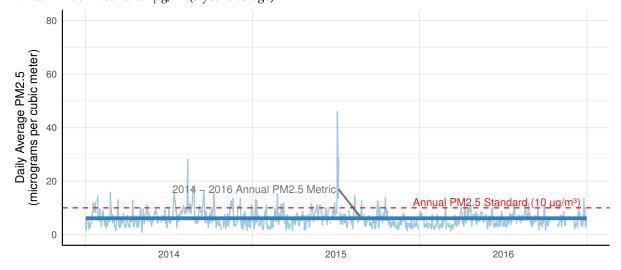


#### **North Vancouver Second Narrows monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 13 µg/m³ (3 year average)



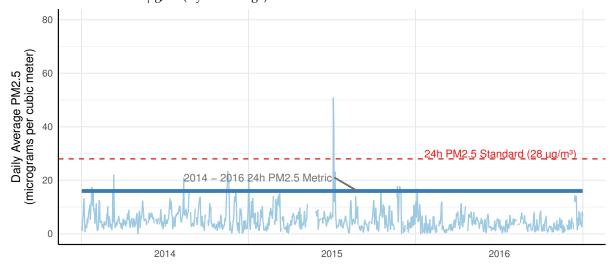
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 6.1 μg/m³ (3 year average)



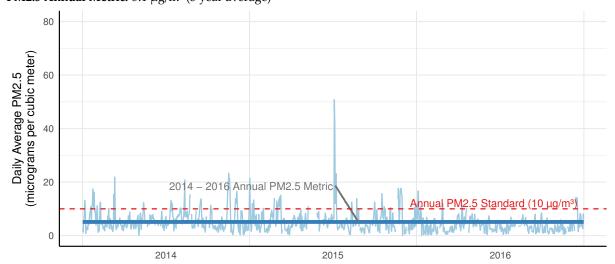


# Pitt Meadows Meadowlands School monitoring station

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 16 µg/m³ (3 year average)



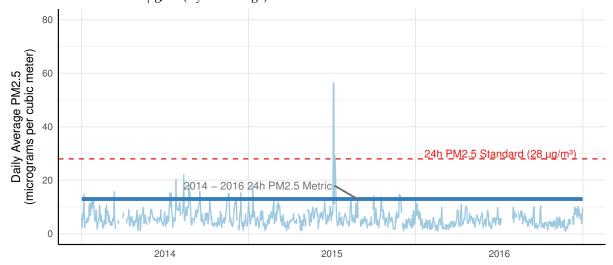
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.1 μg/m³ (3 year average)



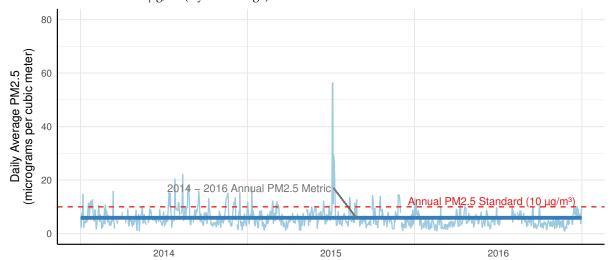


# Port Moody Rocky Point Park monitoring station

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 13 µg/m³ (3 year average)



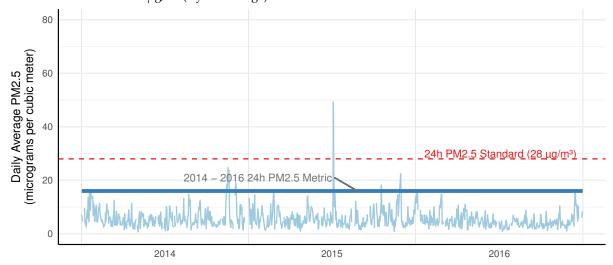
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.9 μg/m³ (3 year average)



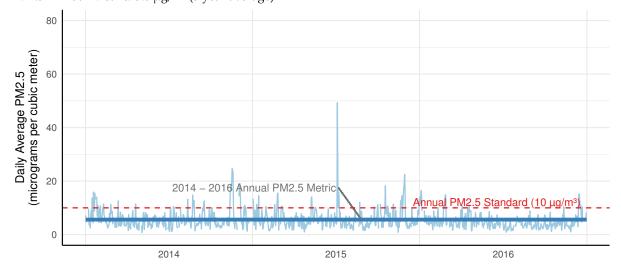


# **Richmond South monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:** 16 μg/m³ (3 year average)



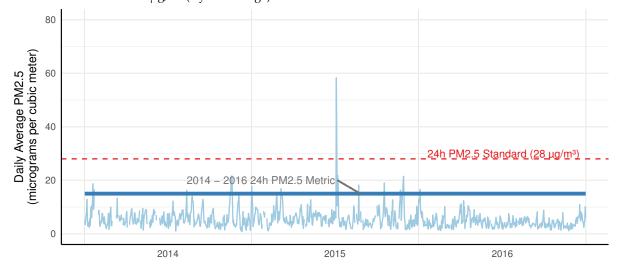
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.6 μg/m³ (3 year average)



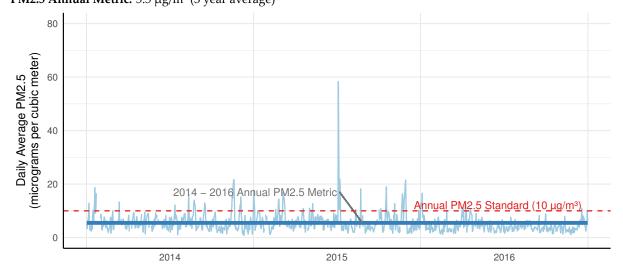


# **Surrey East monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $15 \mu g/m^3$  (3 year average)



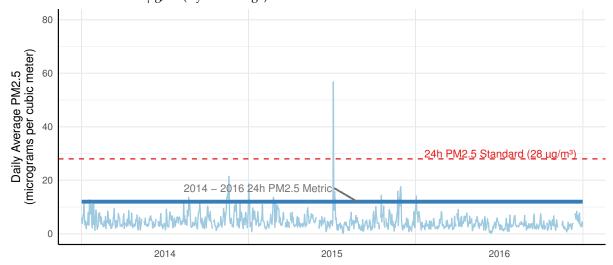
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.5 μg/m³ (3 year average)



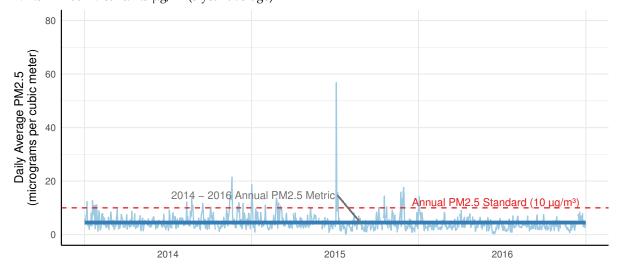


#### Tsawwassen monitoring station

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $12 \mu g/m^3$  (3 year average)



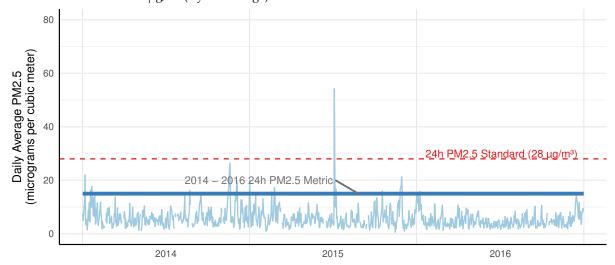
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 4.5 μg/m³ (3 year average)



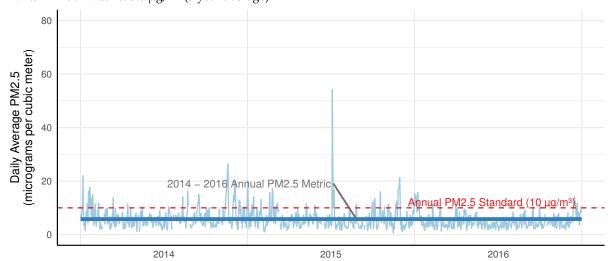


# Vancouver International Airport #2 monitoring station

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 15 µg/m³ (3 year average)



PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.8 μg/m³ (3 year average)



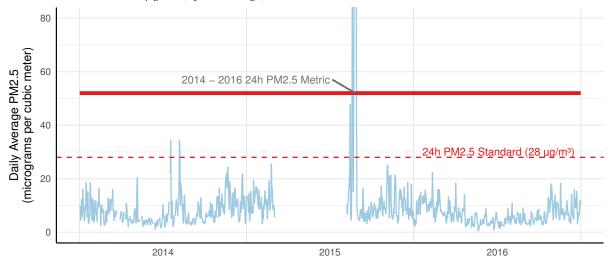


#### **Southern Interior Air Zone**

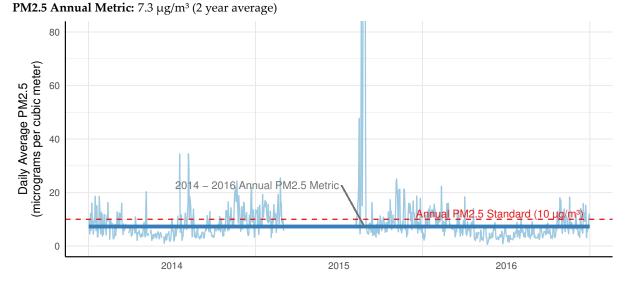
# **Castlegar Zinio Park monitoring station**

# PM2.5 24-hour Air Quality Standard: Not Achieved

**PM2.5 24-hour Metric:** 52 μg/m³ (3 year average)



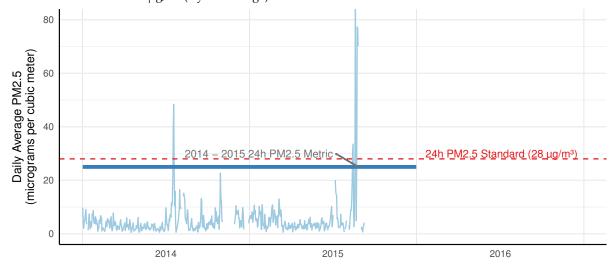
# PM2.5 Annual Air Quality Standard: Achieved





# **Creston PC School monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 25 µg/m³ (2 year average)

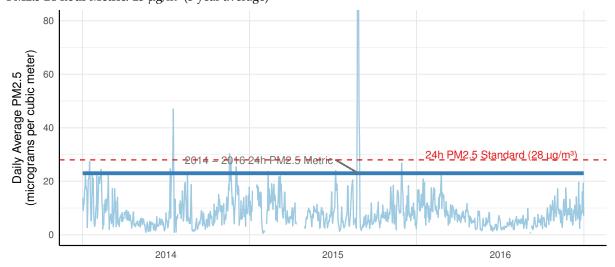


PM2.5 Annual Air Quality Standard: Insufficient Data

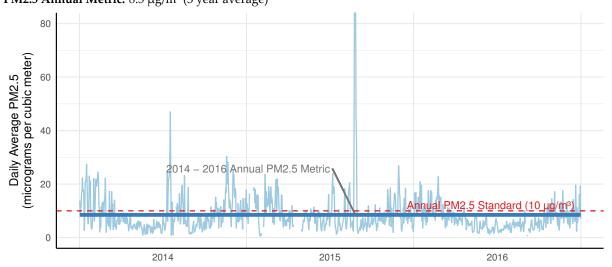


# **Golden Helipad monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 23 µg/m³ (3 year average)



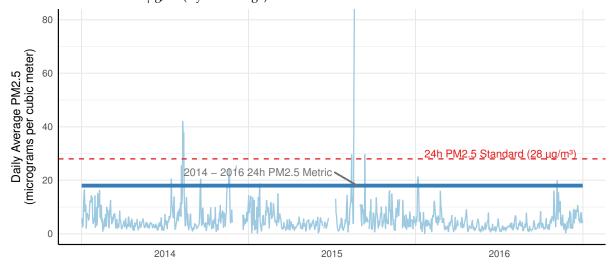
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 8.5 μg/m³ (3 year average)



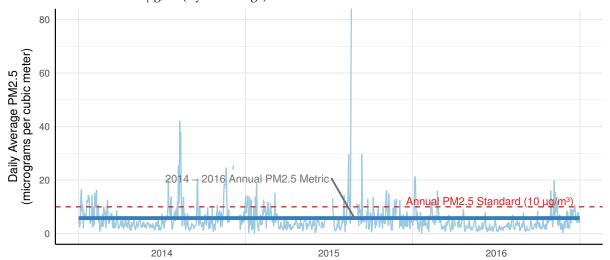


# **Grand Forks City Hall monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:** 18 μg/m³ (3 year average)



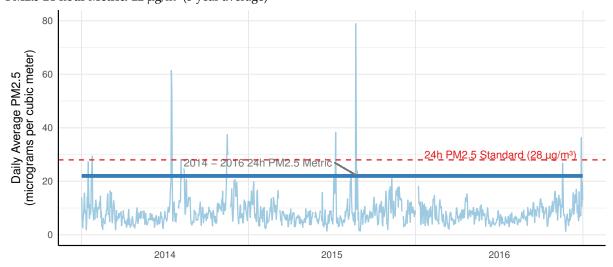
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 5.8 μg/m³ (3 year average)



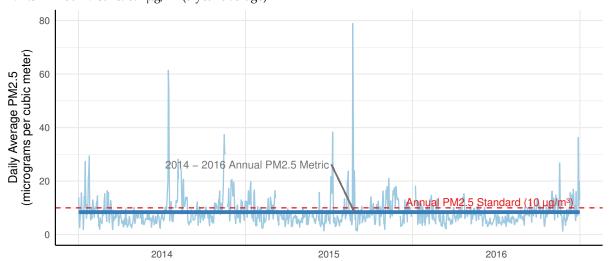


# **Kamloops Federal Building monitoring station**

**PM2.5 24-hour Air Quality Standard:** Achieved **PM2.5 24-hour Metric:**  $22 \mu g/m^3$  (3 year average)



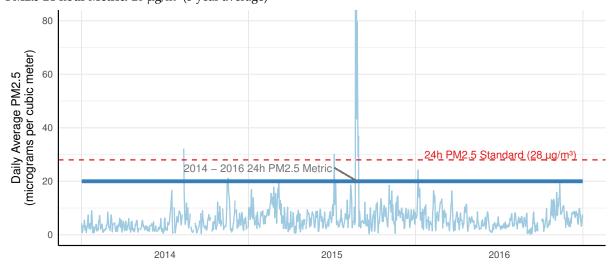
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 8.4 μg/m³ (3 year average)



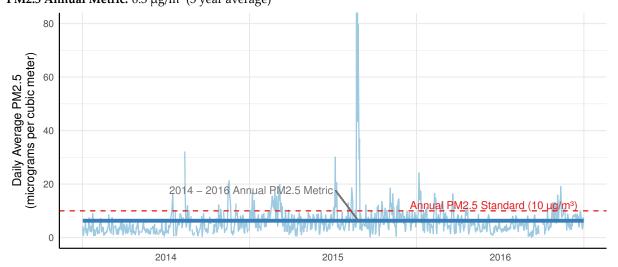


# **Kelowna College monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 20 µg/m³ (3 year average)



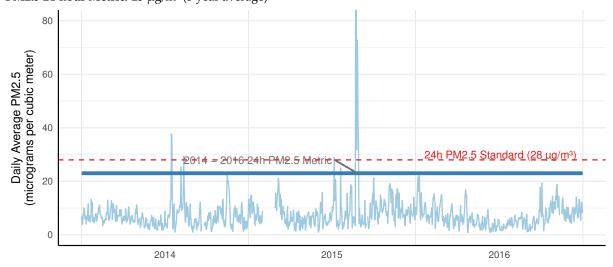
PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 6.3 μg/m³ (3 year average)





# **Vernon Science Centre monitoring station**

PM2.5 24-hour Air Quality Standard: Achieved PM2.5 24-hour Metric: 23 µg/m³ (3 year average)



PM2.5 Annual Air Quality Standard: Achieved PM2.5 Annual Metric: 7.6 μg/m³ (3 year average)

